

THE UNITED STATES DISTRICT COURT FOR  
SOUTHERN DISTRICT OF NEW YORK

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GENOA COLOR TECHNOLOGIES, LTD.,	)	
	)	
Plaintiff,	)	
	)	
v.	)	Civil Action No. 07-CV-6233
	)	
MITSUBISHI ELECTRIC CORP.;	)	(JURY TRIAL DEMANDED)
MITSUBISHI ELECTRIC US HOLDINGS, INC.;	)	
MITSUBISHI ELECTRIC AND	)	
ELECTRONICS USA, INC.;	)	
MITSUBISHI DIGITAL ELECTRONICS	)	
AMERICA, INC.; SAMSUNG	)	
ELECTRONICS CO., LTD.; SAMSUNG	)	
ELECTRONICS AMERICA, INC.	)	
	)	
Defendants.	)	
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**PLAINTIFF'S REPLY CLAIM CONSTRUCTION BRIEF**

Defendants and their expert ignore the language of the claims and specification, to which they scarcely refer, and their few references to the intrinsic evidence are either inapt or erroneous. Indeed, they appear not to have read Genoa's claim construction brief, because they utterly disregard the support for Genoa's proposed claim construction (Genoa's brief at 13 – 20) consisting of specific citations to the claims and specification. Their proposed construction is overly broad as to some limitations and too narrow as to others, but as to all limitations violates well-established rules of claim construction. The specific errors and misconceptions found in Defendant's brief and in the declaration of their expert are described and explained in the Supplemental Declaration of Louis D. Silverstein, Ph.D. in Support of the Plaintiff's Proposed Claim Construction for U.S. Patent No. 7,113,152 ("Supplemental Declaration").

Defendants' primary argument is that this court should pay no attention to the patent when construing its claims. They may feel constrained to so argue, because their construction finds no support in the intrinsic evidence and wholly mischaracterizes Genoa's invention. The '152 patent is not directed to a method for producing just any color image on the basis of just any data signal; rather, it discloses and claims methods for producing a specific kind of color image, namely one made up of at least four colors, based on a conventional three-color data signal.

**A. "color image"**

Remarkably, Defendants pay no attention to the language of Claim 1 itself, which clearly defines the claimed "color image":

1. A method for producing a color image comprising:

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spatially modulating said light of at least four colors in accordance with a data signal to produce said color image.

The inventors are not claiming any color image, which may be monochromatic or polychromatic, but rather a method for producing a specific kind of color image that includes light of at least four colors. The "color image" claimed is not one single color instantaneously and imperceptibly reflected from a "spatial light modulator" such as a "DMD" onto a specific portion of a viewing screen, but rather a color image created by a specific method that is integrated by the brain and visible to the human eye as one composed of four or more colors. (*See*, Supplemental Declaration at 3-5).

Defendants are correct that conventional RGB color televisions display a (RGB) color image – but the TV's RGB image is not the image of four or more colors that is

claimed in the '152 patent. A display showing only one color may perhaps be said to display a color image, although most people outside of MOMA would probably not consider an all-red screen to constitute an image at all, but that clearly is not what the '152 patent is about.

Defendants argue in their brief (at 9) that there is “simply no evidence in the patent or prosecution history” to “support a construction of ‘color image’ using words such as ‘pixel’ and ‘at least four’, which Genoa now suggests.” This argument flies in the face of Claim 1, which uses the words “at least four colors” in describing “said color image.” It also disregards the frequent references in the specification to pixels, e.g. 2:59-63, 7:50, 9:11-13, 10:12, 14, 46, 54, 11:50, 54, of which the color image is necessarily composed. (*See*, Supplemental Declaration at 5).

Defendants assert in their brief (at 14) that terms “that do not appear in any of the claims” cannot be used to construe the claims, but that argument violates the rule of *Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed. Cir. 2005) (en banc) that the specification is “the best single guide to the meaning of a disputed term.” More generally, Defendants ignore the disclosure that the '152 patent covers a method for “providing an expanded color spectrum for the electronic display” that “is not limited to combinations of colors which are produced from only three primary colors.” (3:65 – 4:20). It cannot fairly be read to claim a method for displaying a color image of only one color.

Contrary to Defendants’ argument in their brief (at 11), Genoa’s construction of “color image” does not “render claim 8 incomprehensible.” The “color image” of claim 1 is produced by modulating light of at least four colors according to an input consisting

of a three-color data signal. Claim 1 covers the input-output process. Claim 8, depending from claim 1, adds the limitation of the conversion of the three-color input data signal to data of at least four colors.

Defendants' rare citation to the specification in their brief (at 12) is inapposite. While the specification does indeed disclose "a controller for determining a combination of at least one of the at least four primary colors," (4:22-31) as quoted by Defendants, the '152 patent does not claim a controller. Rather, the controller was claimed in the parent patent, U.S. Patent No. 5,870,523, of which the '152 patent is a continuation.

**B. "data signal"**

In their argument that "data signal" means "a signal that carries data," Defendants again disregard the intrinsic evidence. As evidenced by the specific citations included in support of Genoa's proposed construction (Genoa's brief at 16), the '152 patent discloses that the input data is "RGB input data," (Fig 6B). The flow of data is explained at col 10, lines 39-63 with reference to Fig 3B, and starts with "R, G and B values." This is an important part of the invention, because TV and video input signals are in RGB format, and the point of the invention is to provide for a multi-primary (more than three primary color) display based on a standard RGB TV or video input signal, as discussed in the Field and Background of the Invention (1:17 – 4:4). (*See*, Supplemental Declaration at 5). Defendants cite col. 11, line 66 – col 12, line 15 for the proposition that the input data signal need not be RGB or another three-component data signal, but "is usually presented as 8 bits (256 levels) for each of the seven primary colors." However, the quoted language describes the situation after the input RGB signal has already been

“manipulated in a multi-color transformation module 74.” Thus, Defendants misunderstand the disclosed process.

The specification of the ‘152 patent nowhere discloses that the data signal of claim 1 “could have four components,” as Defendants argue in their brief (at 16). While the provisional application disclosed a “RGB or CMYK image file,” the latter relates to an unclaimed graphic arts embodiment.

**C. “converting”**

Genoa notes that Mitsubishi agrees with Genoa’s proposed construction of “converting” as “transforming.”

Samsung would have the court limit “converting” to “partitioning the color gamut to transform,” and basis its argument on the assertion (parroted by its expert) that “only one type of converting is described in the patent.” As explained by Dr. Silverstein and is apparent from the specification, this argument is erroneous. In fact, the patent discloses alternate embodiments for conversion in addition to partitioning the color gamut into non-overlapping triangles. In col. 16, ln. 61-63, the specification provides that the partitioning method was only one possible conversion method. In addition, the specification discloses other conversion methods at col 22, ln. 34 to col. 24, ln. 30. In particular, col. 23, lines 50-67 describe interpolation within a look-up table containing at least four primary values for known input RGB data signal points. In addition, the specification discloses a spectral method in which input data are converted to spectra from which the at least four primary values are calculated. See, col. 22, ln. 59-col. 23, ln. 17. (See, Supplemental Declaration at 7).

**D. Claim 8**

Genoa provides separate constructions for the individual limitations of claim 8 (“converting”; “three-color data representing said color image in terms of three colors”) as well as the entirety of claim 8, because Defendants sought separate constructions of its component limitations. Genoa’s proposed construction of, “converting three color data representing said color image in terms of three colors into converted image data” incorporates these sub-constructions. Its proposed construction is consistent with independent claim 1 and is not redundant (claim 1 does not claim conversion).

**E. Remaining Claim Terms**

Genoa notes that Defendants agree to its constructions of “polychromatic light,” “digital micromirror device (DMD),” and “array(s).”

Genoa’s construction of “spatially modulating” is broader than Defendants, rather than narrower, and encompasses the disclosed embodiments as set forth in Genoa’s claim chart.

Genoa agrees that there is no need to construe “produce said color image,” provided that “color image” is construed.

Genoa believes that the specification supports its construction of “selectively activating” and “formatted data signal.”

**Conclusion**

For the reasons set forth above and those set forth in Plaintiff's principal brief, Plaintiff requests that its construction of the '152 Patent claims be adopted by the Court.

Respectfully submitted,



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*Attorneys for Plaintiff  
Genoa Color Technologies, Ltd.*

Dated: New York, NY  
May 30, 2008

**CERTIFICATE OF SERVICE**

I hereby certify that service of the foregoing **PLAINTIFF'S REPLY CLAIM CONSTRUCTION BRIEF and SUPPLEMENTAL DECLARATION OF LOUIS D. SILVERSTEIN, Ph.D. IN SUPPORT OF THE PLAINTIFF'S PROPOSED CLAIM CONSTRUCTION FOR U.S. PATENT NO. 7,113,152** was made this 30<sup>th</sup> day of May, 2008, by delivering a true and correct copy of the same by Federal Express Priority Overnight to the following:

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